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# PROGRESS IN THE DEVELOPMENT OF FOAM TARGETS*

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We will report on our work to produce a foam shell for two possible applications: 1) as a liquid-layered cryogenic target on Omega Upgrade, and 2) as a design for the National Ignition Facility. This target consists of a roughly 1 mm diameter (2 mm for NIF) and 100 mm thick spherical low-density foam shell surrounding a central void. The outside of the foam is overcoated with full density polymer which must be topologically smooth. The technology for manufacturing this style of foam shell involves microencapsulation techniques developed at Osaka Universities ILE.

We will present our progress in adapting the trimethacrylate formulation route to these shells developed by the ILE group for Omega and NIF scale targets. In addition we will report upon our progress in adapting a resorcinol/formaldehyde (R/F) low density foam formulation developed at LLNL to the microencapsulation process. Properties of the R/F shells produced will be presented as well as proposed pathways for overcoating these shells.

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Oral Presentation Preferred